

CLAIMS

1. A system for distributing first and second materials comprising:
first and second sources holding the first and second materials,
respectively;
a plurality of distribution units; and
5 a nurse distribution mechanism coupled between the sources
and the distribution units by which each of the first and second
materials from the respective first and second sources can be
transmitted to the plurality of distribution units.
2. The system of claim 1, wherein the first material from the first
source is transmitted to the plurality of distribution units at a first time,
and the second material from the second source is transmitted to the
plurality of distribution units at a second time.
3. The system of claim 1, wherein the plurality of distribution units
includes a first plurality of meters and a second plurality of meters,
wherein a respective one of each of the first and second pluralities of
meters is included within each of the respective distribution units.
4. The system of claim 3, wherein the nurse distribution mechanism
includes first and second pluralities of distribution lines, wherein each of
the first plurality of distribution lines is coupled between the first source
and a respective one of the first plurality of meters, and wherein each of
5 the second plurality of distribution lines is coupled between the second
source and a respective one of the second plurality of meters.
5. The system of claim 4, wherein each of the meters of the first
and second pluralities of meters is capable of being turned on and
turned off by way of at least one signal provided by at least one of an

electrical signal transmitted by wire, a wireless signal, and a GPS signal.

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6. The system of claim 1, wherein the plurality of distribution units includes a plurality of meters, and wherein each of the meters includes first and second receiver compartments

7. The system of claim 6, wherein communication between the compartments of the respective meters and metering devices of those respective meters is controlled by way of a flapper.

8. The system of claim 7, wherein the nurse distribution mechanism includes first and second pluralities of distribution lines, wherein each of the first plurality of distribution lines is coupled between the first source and the first receiver compartment of a respective one of the plurality of meters, wherein each of the second plurality of distribution lines is coupled between the second source and the second receiver compartment of a respective one of the plurality of meters, and wherein the respective flapper of each respective meter determines whether the meter distributes material from its respective first receiver compartment or from its respective second receiver compartment.

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9. The system of claim 8, wherein each of the flappers of each of the meters is capable of being controlled from a remote location.

10. The system of claim 1, wherein the nurse distribution mechanism comprises:

a first primary line coupled to the first source;

a second primary line coupled to the second source;

a first nurse header coupled to each of the first and second primary lines; and

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10 a first plurality of secondary lines, each of which is coupled to the first nurse header and additionally is coupled to a respective one of the plurality of distribution units, wherein at least some of the plurality of distribution units are coupled to the first nurse header by the plurality of secondary lines.

11. The system of claim 10, wherein the nurse distribution mechanism further comprises:

a third primary line coupled to the first source;

a fourth primary line coupled to the second source;

5 a second nurse header coupled to each of the third and fourth primary lines; and

10 a second plurality of secondary lines, each of which is coupled to the second nurse header and additionally is coupled to a respective one of the plurality of distribution units, wherein a first subset of the plurality of distribution units are coupled to the first nurse header by the first plurality of secondary lines, and another subset of the plurality of distribution units are coupled to the second nurse header by the second plurality of secondary lines.

12. The system of claim 10, further comprising a third source holding a third material and a third primary line coupled to the third source, wherein the first nurse header is coupled to each of the first, second and third primary lines.

13. The system of claim 10, wherein all of the plurality of distribution units are coupled to the first nurse header by the plurality of secondary lines, and wherein each of the distribution units includes a meter with a receiver that is coupled to a respective one of the plurality of secondary lines.

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14. The system of claim 10, wherein whether the first plurality of secondary lines transmit the first material or the second material is determined by at least one nurse inductor box.

15. The system of claim 1,
wherein the plurality of distribution units includes a plurality of meters,

5 wherein each of the meters includes a receiver having first and second inlets,

wherein the nurse distribution mechanism includes first and second pluralities of distribution lines,

10 wherein each of the first plurality of distribution lines is coupled between the first source and the first inlet of the receiver of a respective one of the plurality of meters, and

wherein each of the second plurality of distribution lines is coupled between the second source and the second inlet of the receiver of a respective one of the plurality of meters.

16. The system of claim 15,

5 wherein whether the respective receivers receive the first material or the second material by way of the respective first or second inlets is determined by one of a setting on a respective nurse inductor box and a status of air being supplied to at least one of the first and second sources.

17. The system of claim 1, wherein the nurse distribution mechanism comprises:

first and second primary lines coupled to the first and second sources, respectively;

5 a plurality of secondary lines coupled to at least some of the distribution units, wherein each of the secondary lines is coupled to a

respective one of the distribution units; and

a valve coupled to the first and second primary lines and to each of the plurality of secondary lines.

18. The system of claim 17, wherein the valve is positioned closer to the first and second sources than to the distribution units.

19. The system of claim 17, wherein the valve is capable of combining the first and second materials to form a combination material, and capable of providing the combination material by way of the secondary lines to the distribution units.

20. The system of claim 1, wherein the nurse distribution mechanism further comprises:

first and second primary lines coupled to the first and second sources, respectively;

5 a plurality of secondary lines coupled to at least some of the distribution units, wherein each of the secondary lines is coupled to a respective one of the distribution units; and

10 a coupling mechanism that, in a first position, couples the first primary line to the plurality of secondary lines and, in a second position, couples the second primary line to the plurality of secondary lines.

21. The system of claim 20, wherein the coupling mechanism is manually actuable.

22. The system of claim 1,

wherein each of the distribution units includes at least one meter that one of delivers materials volumetrically and delivers materials singularly, wherein the first and second materials are one of different
5 from one another and the same as one another, and wherein each of the first and second materials is selected from the group consisting of seed, fertilizer, and pesticide.

23. An agricultural vehicle comprising:

a frame

first and second tanks holding first and second materials,

respectively, wherein the first and second tanks are supported by one
of the frame and a secondary support portion at least indirectly coupled
to the frame;

a plurality of distribution units supported by the frame; and

a nurse distribution mechanism coupled between the tanks and
the distribution units by which each of the first and second materials
from the respective first and second tanks can be transmitted to the
plurality of distribution units.

24. The agricultural vehicle of claim 23, wherein the first and second
materials are seed materials and the frame is part of a planter.

25. A method of distributing first and second materials from an
agricultural work vehicle onto a surface, the method comprising:

receiving the first material into a first compartment and the
second materials into a second compartment;

transmitting a first portion of one of the first and second materials
by way of a nurse distribution mechanism to at least one metering
device;

distributing the first portion by way of the at least one metering
device;

communicating a command concerning a change in a status of a
controlled device including at least one of the nurse distribution
mechanism and the at least one metering device;

changing the status of the controlled device in response to the
command;

transmitting a second portion of the other of the first and second
materials by way of the nurse distribution mechanism to the at least one

metering device; and

distributing the second portion by way of the at least one metering device.

26. The method of claim 25, further comprising, prior to the transmitting of the second portion:

determining a time period that is required for a third portion of the one material to be completely distributed by way of the at least one metering device subsequent to the changing of the status of the controlled device; and

determining a time at which the agricultural vehicle is expected to reach a position at which the second portion should begin to be distributed;

wherein the status of the controlled device is changed in advance of the time by the time period.